GV429P

Version #5 (0718)
Approved by J. S.

Product

IMAGin® B-free® GRUV® GV429P

Product Description

GV429P is a 3.2 mil **gloss** white, soft calendared PVC film designed for solvent and UV inkjet printing. The product is coated on one side with a permanent, opaque, acrylic pressure sensitive adhesive with air egress technology and supplied with a 98# polycoated liner.
GV429P is designed for indoor or outdoor medium-term advertising and promotion applications on flat or simple curved surfaces. Use of PERMACOLOR® ColorGard LUV or RAYZor™ overlaminating films will extend the life of the graphic. GV429P is also a great for bubble-free applications of indoor wall murals. This product is NOT intended for vehicle wraps, complex surfaces, cut lettering applications, or wet application installation methods.

Physical Properties

Property	Typical Values	Test Method
Peel Adhesion, lb. /in. (N/25mm) 180° on Stainless Steel - 30 min. - 24 hr.	 5.0 (21.9) 5.3 (23.2)	PSTC - 1
Quick Tack, lb. /in² (N/25mm) Stainless Steel	 3.8 (16.6)	FTM - 9
Dimensional Stability in Percent 48 hours @ 158°F	 max 1.0	FTM - 14 10” x 10” Sample Bonded to aluminum
Temperature Ranges Minimum Application: End Use:	 50°F (+10°C) -40°F to 180°F (-40°C to 82°C)	

Durability

The outdoor durability of the unprinted film is 4 years. Overlamination of the inkjet-printed material with PERMACOLOR overlaminating films delays color fading that may occur over time. Color fading is mainly dependent upon the inks quality (see technical data sheets given by the ink manufacturers) and pressure sensitive media being used.

Shelf Life

2 years from Date of Manufacture when stored at 60 to 77°F (15/25°C) and 50% relative humidity in the original package.

Approved Printing Processes:

Screen Printing:		**HP Indigo**	☐
UV Cured	☐	**Off-set**	☐
Solvent	☐	**Off-set UV**	☐
Digital: UV Inkjet	☒	**Thermal Transfer**	☒
Eco-solvent	☒	**Flexographic**	☐
True solvent	☒	**Laser**	☐
Latex	☒	**Jetrion**	☐

To achieve the best possible print quality, please make sure that the correct ICC profiles or printer settings are used. Profiles can be obtained from our Distributors or can be downloaded from mactac.com. Printer and heater settings and ICC profiles can also be downloaded from some O.E.M. or software manufacturer's websites. The ICC profiles are provided solely as a customer resource. Print environments, the individual nature of printing systems, inks and software can significantly affect output.

Chemical Resistance

The film was adhered to an aluminum substrate 24 hours prior to testing. Samples were immersed in each chemical and later observed for adhesion.

Chemical	Time Immersed	Observation
Water	24 hours	No Effect
5% Detergent	24 hours	No Effect
SAE 20 Motor Oil	24 hours	No Effect
10% Hydrochloric Acid	10 min.	No Effect
10% Ammonium Hydroxide	10 min.	No Effect
Unleaded Gas	1 hour	No Effect
Ethylene Glycol	24 hours	No Effect

Limitations

Due to the wide variability of interior walls, sealants and paints, no claims for successful applications to or removal from painted wall surfaces are made by Mactac. It is the users' responsibility to determine the products suitability for the intended wall.

1) **The user is responsible for determining the product's suitability, including adhesion and if needed, removal characteristics when used in applications other than listed specifically in this Performance Guide.**
2) **If there are any questions about applications, please contact your Mactac sales representative to discuss your requirements for recommendations.**
3) **If this is a printed Performance Guide it is an uncontrolled document. Please check the Mactac website for the latest, most up-to-date version.**

Recommendations

Always test your combination of B-free Gruv products, inks and laminating films prior to commercial use.

1. **Printing Conditions:** Print in conditioned pressroom at ±73°F (23°C) and 50% RH. The maximum allowable ink saturation is 270%.

2. **Drying Step:** It is **critical** the GV429P print is properly dried prior to cutting, lamination or application. We strongly recommend leaving the print *open to the air* (not rolled up in a tube) for a minimum of 24 hours prior to lamination or application. Residual solvents in the vinyl and adhesive will negatively affect the bubble free properties of the adhesive and can cause a significant build, or loss, in adhesion resulting in potential substrate or graphic failure and/or more residual adhesive being left behind upon removal. Additional hot air drying or IR drying will speed up the drying process and shorten the overall drying time.

3. **Laminating Conditions:** If the printed graphic is likely to be exposed to corrosive liquids, smoke, fumes, and highly polluted areas or there is a likelihood of scratching, it is highly recommended to laminate with **PERMACOLOR ColorGard LUV** series overlaminating films.

4. **Not recommended for surfaces including, but not limited to** rubber and plastic, aged paint (chalking) and metals (corrosion or oxidation) excluding aluminum, improperly cured paint, surfaces with poor paint-to-surface adhesion, over existing graphics that must remain upon removal, oily surfaces, unpainted wood, etc.

5. **Application:** See **TA2032 Surface Preparation** on mactac.com website – for specific application to dry wall reference **TA2500**. These can be found on the Mactac website under Technical Assistance Guides.

6. **Transportation Conditions:** To allow for easy transportation, B-free Gruv series can be rolled up, with the image out, with a minimum diameter of 6 inches (15cm). When the image is not protected by an overlaminate, make sure the print is completely dry and protected in a plastic bag. During transportation or storage, avoid exposing them to extreme temperature and humidity changes.

- *Values given are typical and are not necessarily for use in specification*.